

Page 14

RECEIVED  
CENTRAL FAX CENTER

AUG 17 2007

REMARKSAmendments to the Claims

The following amendments have been made: claims 1, 6, 11, 27, 42, 47-49, 51, 53-57, 76, 78, and 81-83 are amended; claims 5, 15, 32, 46, 50, 52 are canceled; and new claims 84-87 are added.

All of the amendments to the claims are supported by the original specification and no new matter is presented in the amended or new claims.

New claim 84 recites an elastomeric composition comprising two different carbon blacks wherein the total carbon black content is between 80 and 200 phr. The first carbon black must have a surface area of less than 30 m<sup>2</sup>/g and a dibutylphthalate oil absorption of less than 80 cm<sup>3</sup>/100 gm and there is at least one second carbon black having a surface area greater than 30 m<sup>2</sup>/g and a dibutylphthalate oil absorption of greater than 80 cm<sup>3</sup>/100 gm. Support for this claim is found in original claim 15, specification paragraph 0069, and examples 10-20.

Rejection under 35 U.S.C. § 103

As a preliminary note prior to commenting on the outstanding rejection, as the proposed amendment of July 17, 2007 was not entered into the record, to ensure that the remarks and Waddell Declaration submitted with the July 17, 2007 amendment are part of the official record, Applicants herewith reference and fully incorporate all the remarks and the Waddell Declaration as provided with the July 17<sup>th</sup> amendment. Despite the non-entry of the amendment, Applicants express appreciate for the consideration given to the remarks, as provided in the Attachment to Advisory Action of July 31, 2007.

All of the pending claims, excluding new claims 84-87, stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dias et al. (WO/ 02/48257 A2) (hereinafter Dias"). Applicant respectfully traverses. Further examination of the application as amended and reconsideration of the rejections are requested.

In accordance with this invention it has been discovered that an isobutylene elastomeric composition comprising a measured amount of carbon black having a surface area of less than 30 m<sup>2</sup>/g and a measured amount of polybutene oil obtains an elastomer composition of reduced air

USSN: 10/633,001

Page 15

permeability, with the ability to maintain other rubber blend properties such as strength, flexibility, processability, etc. Dias does not teach or suggest the criticality of using a low surface area black above the claimed critical threshold phr levels in combination with specified polybutene oil, nor does it teach or suggest applicant's unexpected results of improved (reduced) permeability while retaining the capability of tailoring the desired physical and processing characteristics required for an air barrier.

It has been held that Applicant has not shown nonobviousness of the presently claimed invention because (1) no side-by-side comparative examples are provided and (2) applicant's data are not reasonably commensurate in scope with the claims. In response Applicant submitted the Declaration of Walter H. Waddell ("Waddell Declaration"), again incorporated herein by reference, for the consideration by the Office.

Regarding the comparative data issue, and the results set forth in the Waddell Declaration, two issues are raised in the Advisory Action Attachment. First, it is stated that "applicant states on page 15 that the showing of improved results is not *unexpected* given that a model is used to predict combination of properties" (emphasis added). This is absolutely incorrect -- Applicants have made no such statement. What Applicants have presented in the Waddell Declaration is a showing of elastomeric properties based on composition parameters selected by Applicants wherein the properties are determined by an analytical (i.e. computer) program, rather than a determination of the properties by actually lab compounding the elastomers and running the plurality of tests. These properties determined by the computer show unexpected results over those provided by Dias and would not have been obvious to those of ordinary skill in the art.

In using the term "model," Applicants are not indicating that the statistical model generated by Applicant is available to any one of ordinary skill in the art. The computer program is merely an analytical tool to prove out (alternatively termed "test" or "model") a composition that Applicant has already selected and is not obvious or known to those in the art. The computer program generates a unique model for the inputs provided by Applicant. This is not dissimilar from FEA testing performed by automotive companies that use computer modeling to determine vehicle performance and response of new automotive designs or computer modeling of building designs subjected to weather conditions. In all of these instances, a computer "model" is

USSN: 10/633,001

PAGE 18/20 \* RCV'D AT 8/17/2007 4:41:02 PM [Eastern Daylight Time] \* SVR:USPTO-EFXRF-6/11 \* DNI:2738300 \* CSID:281 834 1231 \* DURATION (mm:ss):03:58

Page 16

generated based upon unique input provided by the user – the model can then be manipulated by the user to determine different properties or characteristics.

Second, it is held that no comparative data including polybutene oil is provided. However, this is not true. In the Prediction Profiler of Exhibit 6, the composition parameters are set to comprise 60 phr N660 and 8 phr Parapol. The results of this blend, comprising a high surface area carbon black with polybutene oil, is discussed in paragraph 12 of the Declaration. The results of increasing the N660 to amounts above 60 phr, based on the Prediction Profiler, are also discussed in paragraph 12. In summary, based on the work done by Applicants, with the polybutene oil, increasing amounts of N660 to amounts within Applicants recited range would yield compounds that are less processable.

With regard to applicant's data are not reasonably commensurate in scope with the claims, the position is still taken that the three carbon blacks disclosed in specification fail to enable the recitation of all carbon blacks of the recited surface area and dibutylphthalate oil absorption values. In further arguments regarding examples providing enablement to the claim scope, support is placed on the courts statement *in re Greenfield*, 197 USPQ 227 (CCPA 1978) that one, or a small number, of species giving unexpected results is inadequate proof for a subgenus of several hundreds. However, in the instant claimed invention, there are not hundreds of different carbon blacks that meet the claimed limitations. Instead, out of the nine main classes of carbon blacks (ranging from the N1xx designation to N9xx designation per ASTM D176), by the claim limitations, Applicants have eliminated more than half of the classes as not applicable to the invention. Of the remaining carbon black classes, there are not hundreds of different carbon blacks. Applicants have provided a reasonable representative sample of carbon blacks within the recited limitations. The *in re Greenfield* court later held in *in re Kollman*, 595 F2 48, 56 (CCPA 1979) that "unobviousness of a broader claimed range can, in certain instance, be proven by a narrower range of data. Often, one having ordinary skill in the art may be able to ascertain a trend in the exemplified data which would allow him to reasonable extend the probative value thereto. The proof, thus considered, might then be sufficient to rebut a PTO holding of *prima facie* obviousness." As evidenced by the Waddell Declaration, there is a trend in the exemplified data that would permit one in the art to ascertain a trend that supports the unobviousness of the recited invention.

USSN: 10/633,001

PAGE 19/20 \* RCV'D AT 8/17/2007 4:41:02 PM [Eastern Daylight Time] \* SVR:USPTO-EFXRF-6/11 \* DNI:2738300 \* CSID:281 834 1231 \* DURATION (mm:ss):03:58

Page 17

It is respectfully requested that the rejections of the claims be reconsidered and withdrawn in light of the above arguments and the Waddell Declaration

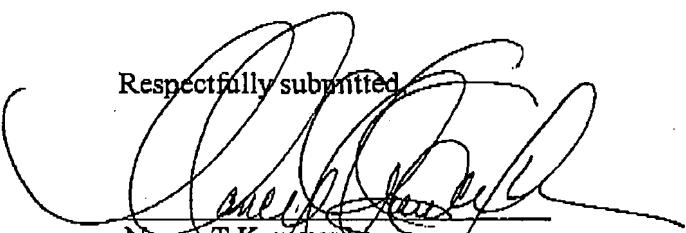
With regard to new claims 84 to 87, none of the prior art cited in the application, especially Dias, disclose, anticipate, or appreciate the use of two different types of carbon blacks in combination with the recited elastomer and polybutene oil.

Having addressed all issues set out in the office action, Applicant respectfully submits that the pending claims are now in condition for allowance. Applicant invites the Examiner to telephone the undersigned attorney if there are any issues outstanding which have not been addressed to the Examiner's satisfaction. The Commissioner is hereby authorized to charge counsel's Deposit Account No. 05-1712, for any fees, including extension of time fees or excess claim fees, required to make this response timely and acceptable to the Office.

August 17, 2007

\_\_\_\_\_  
Date

Respectfully submitted

  
Nancy T Krawczyk  
Attorney for Applicants  
Registration No. 38,744

ExxonMobil Chemical Company  
Law Technology  
P.O. Box 2149  
Baytown, Texas 77522-2149  
Phone: 281-834-2429  
Fax: 281-834-2495

USSN: 10/633,001

PAGE 20/20 \* RCVD AT 8/17/2007 4:41:02 PM [Eastern Daylight Time] \* SVR:USPTO-EFXRF-6/11 \* DNI:2738300 \* CSID:281 834 1231 \* DURATION (mm:ss):03:58